

Date: Wed, 14 Apr 93 04:30:25 PDT
From: Ham-Policy Mailing List and Newsgroup <ham-policy@ucsd.edu>
Errors-To: Ham-Policy-Errors@UCSD.Edu
Reply-To: Ham-Policy@UCSD.Edu
Precedence: Bulk
Subject: Ham-Policy Digest V93 #95
To: Ham-Policy

Ham-Policy Digest Wed, 14 Apr 93 Volume 93 : Issue 95

Today's Topics:

 1500 watts
 1500 watts too much? (8 msgs)
 CW = effective utilization?
 Let each determine their own incentive!

Send Replies or notes for publication to: <Ham-Policy@UCSD.Edu>
Send subscription requests to: <Ham-Policy-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Policy Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-policy".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Tue, 13 Apr 1993 19:21:09 GMT
From: usc!rpi!cary113.its.rpi.edu!melllob@network.UCSD.EDU
Subject: 1500 watts
To: ham-policy@ucsd.edu

I'd like to reiterate one of rklein@lobo.rmhs.colorado.edu
(Ronald D. Klein)'s main points and add a little.

Mr. Klein mentioned "Rather than to do a proper engineering
job, toss the problem into the other guy's lap, eh!"

This is so true. Why should we, or anyone else for that
matter, reduce power so manufacturers can keep the costs
of making thier products down by not having to put filters, etc,
in their equipment?

This is just like the laws regarding cellular. The Cellular
companies must insure their customers that their conversations
are private. It is cheaper for them to push laws through the

FCC than it is to put scrambling devices in their phones.

But in both cases, it's wrong. It's called passing the buck.

-Brett Mellor -- mellob@rpi.edu

Date: 13 Apr 93 07:03:58
From: idacrd.ccr-p.ida.org!idacrd!n4hy@uunet.uu.net
Subject: 1500 watts too much?
To: ham-policy@ucsd.edu

That is preposterous. Radio stations, TV stations, etc. put out considerably more power than 1500 watts. I will agree that these are not densely packed in with other people's houses and $1/r^2$ really brings their stuff down in a hurry. Nevertheless, these should be pointed out as examples of other transmitters that you must guard against so as to prevent only hams from getting the blame.

Bob

--

Robert W. McGwier | n4hy@ccr-p.ida.org
Center for Communications Research | Interests: amateur radio, astronomy, golf
Princeton, N.J. 08520 | Asst Scoutmaster Troop 5700, Hightstown

Date: Tue, 13 Apr 1993 12:37:49 GMT
From: yuma!lobo.rmhs.colorado.edu!rklein@purdue.edu
Subject: 1500 watts too much?
To: ham-policy@ucsd.edu

I've not seen the RF design article, but it is obvious to me that the proponent of reducing the ham power limit is simply trying to avoid providing equipment of proper design. Rather than to do a proper engineering job, toss the problem into the other guy's lap, eh! This is ludicrous.

With the bands as crowded as they are, those of us who work dx or contests, or even have idle ragchews on 40 in the evening need the 1500 watt capability to communicate effectively.

This guy's suggestion reminds me of the time I rented a house in another city. When heating season came along, I had the local gas company check the 12 year old gas forced air furnace, which they immediately redtagged and shut the gas off to, because of a crack in the heat exchanger which could have resulted in CO poisoning of my wife, myself, and our 8 month old daughter. The landlord's

reaction was to get angry and tell me that "there wouldn't be a problem if you hadn't had it checked"!

We really need to counter positions that would restrict our maximum power limit. This is a world wide hobby and we need the capability to communicate on a worldwide basis.

If you can't design equipment with adequate RF susceptibility characteristics than get out of the engineering business! I've designed a lot of gear that has met some rather stringent requirements. So can others.

Ron - W0OSK

Date: 11 Apr 93 23:13:15 EDT
From: sdd.hp.com!zaphod.mps.ohio-state.edu!darwin.sura.net!udel!news.intercon.com!psinnntp!arrl.org@network.UCSD.EDU
Subject: 1500 watts too much?
To: ham-policy@ucsd.edu

Given that the 11 meter "service" gets to use 12 watts PEP in an uncontrolled fashion, perhaps consumer equipment should be designed to withstand typical worst case fields from such a transmitter.

In particular are those living in Philadelphia row homes, condominiums, and apartment complexes. The difference in distance between the antenna and the affected equipment can easily be a tenth that found in a neighborhood of single family homes. Note that 20 dB more power than 12 watts PEP isn't all that different from the current limit for amateurs (USA).

Or, are 11 meter transmitters just too powerful, requiring that the power limits for them be lowered? :-).

Zack Lau KH6CP/1

Internet: zlau@arrl.org "Working" on 24 GHz SSB/CW gear
Operating Interests: 10 GHz CW/SSB/FM
US Mail: c/o ARRL Lab 80/40/20 CW
225 Main Street Station capability: QRP, 1.8 MHz to 10 GHz
Newington CT 06111 modes: CW/SSB/FM/packet
amtor/baudot
Phone (if you really have to): 203-666-1541

Date: Tue, 13 Apr 1993 14:41:09 GMT
From: usc!zaphod.mps.ohio-state.edu!magnus.acs.ohio-state.edu!csn!yuma!
galen@network.UCSD.EDU
Subject: 1500 watts too much?
To: ham-policy@ucsd.edu

In article <C5ECqK.Hr3@athena.cs.uga.edu> mcovingt@aisun3.ai.uga.edu (Michael Covington) writes:

>In a recent issue of _RF Design_ there was a letter from an engineer who
>feels that, now that EMI susceptibility is becoming a real concern of the
>industry (hooray!), the amateur radio 1500 watt limit should be lowered.
>His rationale is that it's simply unreasonable to expect consumer electronic
>gear to work properly right next to a 1500-watt radio station. He feels
>1500 watts is simply too much to use in a residential area.
>What do you all think?
>(NO EMAIL REPLIES; participate in the _public_ discussion!)
>:- Michael A. Covington, Associate Research Scientist : *****

Although I get a kick out of using less than 100 watts, I hold the firm belief that hams should be allowed to use as much power as the contact requires. The limit is 1500 watts, maybe this is enough, maybe it isn't.

There is a discussion going on in sci.electronics about signals interfering with TV's, stereos and touch sensitive lamps. Look at article 26520 and beyond. The original poster immediately thought it was a ham using an illegal amplifier. It has been explained that it is probably a CB'er with an amp.

If the makers of TV's, stereos, touchy lamps etc weren't so

GGGGGGGG	RRRRRR	EEEEEEEE	EEEEEEEE	DDD	YY	YY
G	R R	E	E	D D	YY	YY
G	R R	E	E	D D	YY	YY
G GG	RRRRR	EEEE	EEEE	D D	YYYY	
G G	R R	E	E	D D	YY	
G G	R R	E	E	D D	YY	
GGGGGGGG	R R	EEEEEEEE	EEEEEEEE	DDD	YY	

these kinds of problems wouldn't exist. They don't occur as much in Europe.

Just my opinion,
Galen Watts, KF0YJ

Date: Tue, 13 Apr 1993 16:37:01 GMT
From: usc!howland.reston.ans.net!gatech!emory!athena!aisun3.ai.uga.edu!

mcovingt@network.UCSD.EDU
Subject: 1500 watts too much?
To: ham-policy@ucsd.edu

I tend to agree with KF0YJ, and with some other points that have been made:

(1) High-power DX stations are very useful when there are emergencies in remote places.

(2) Reducing ham power limits by any _reasonable_ amount (like a factor of 10) would have little effect on the susceptibility problem. After all, you can get very strong fields from cellular phones, CBs, etc., and other _low-power_ devices that are commonly used _close_ to TVs and stereos. They are the real problem.

In short, QRO ham transmitters aren't the source of the strongest fields that consumer gear has to endure, anyway.

--

:- Michael A. Covington, Associate Research Scientist : *****
:- Artificial Intelligence Programs mcovingt@ai.uga.edu : *****
:- The University of Georgia phone 706 542-0358 : * * *
:- Athens, Georgia 30602-7415 U.S.A. amateur radio N4TMI : ** *** ** <><

Date: Tue, 13 Apr 1993 16:59:57 EST
From: anomaly.sbs.com!n1mpq!news@uunet.uu.net
Subject: 1500 watts too much?
To: ham-policy@ucsd.edu

mcovingt@aisun3.ai.uga.edu (Michael Covington) writes:

> In a recent issue of _RF Design_ there was a letter from an engineer who
> feels that, now that EMI susceptibility is becoming a real concern of the
> industry (hooray!), the amateur radio 1500 watt limit should be lowered.
>
> His rationale is that it's simply unreasonable to expect consumer electronic
> gear to work properly right next to a 1500-watt radio station. He feels
> 1500 watts is simply too much to use in a residential area.
>
> What do you all think?

I don't think it's going to happen. There are too many 1500W+ amps out there to curtail the use.

But, I do think that the concept of running the lowest power necessary

to maintain communication should be stressed.

Tony

```
-----  
-- Anthony S. Pelliccio, kd1nr/ae      // Yes, you read it right, the //  
-- system @ garlic.sbs.com           // man who went from No-Code //  
-----// (Thhhppptt!) to Extra in //  
-- Flame Retardent Sysadmin         // exactly one year! //  
-----
```

```
-- This is a calm .sig! --  
-----
```

```
-----  
  
Date: 14 Apr 1993 03:52:56 GMT  
From: cronkite.cisco.com!dstine@ames.arpa  
Subject: 1500 watts too much?  
To: ham-policy@ucsd.edu
```

In article <C5ECqK.Hr3@athena.cs.uga.edu> mcovingt@aisun3.ai.uga.edu (Michael Covington) writes:

>In a recent issue of _RF Design_ there was a letter from an engineer who
>feels that, now that EMI susceptibility is becoming a real concern of the
>industry (hooray!), the amateur radio 1500 watt limit should be lowered.

>

>His rationale is that it's simply unreasonable to expect consumer electronic
>gear to work properly right next to a 1500-watt radio station. He feels
>1500 watts is simply too much to use in a residential area.

>

>What do you all think?

I think his reasoning is complete bullpuckey.

Equipment CAN be designed to work next to a 1KW transmitter. It isn't impossible. It isn't even difficult.

It is that the EIA and consumer electronic companies are too damn lazy to do the job correctly.

dsa

```
-----  
  
Date: Tue, 13 Apr 1993 20:32:26 GMT  
From: news.cerf.net!proton!psi.llumc.edu!britton@network.UCSD.EDU  
Subject: 1500 Watts Too Much?  
To: ham-policy@ucsd.edu
```

Since the RF power question posed in the February RF Design Magazine has come up again, I thought I would repost the original letter. Several people on the net said they had not read it. Here it is:

> The February, 1993 issue of RF Design magazine published a letter-to-the-
> editor which should be of concern to U.S. hams. The letter follows:

>

> Editor:

>

> While I support your idea ("An EMC Wish List", RF Design, August, 1992)
> that consumer equipment should be more resistant to EMI than most of it
> presently is, my jaw dropped when I read that the FCC had measured a
> 9 V/meter field induced in a hapless neighbor's home by a ham running
> a 1 kW HF transmitter. This is a HUGE, absurd amount of RF for a piece
> of consumer equipment to reject!

>

> EMI suppression is not free. If a \$300 (retail) VCR can have no more
> than about \$40 in actual component cost, the cost of adding sufficient
> EMI suppression to reject a 9 V/m field can significantly affect the
> selling price of such equipment. I would ask you why tens of millions
> of consumers should be so taxed to permit a few amateurs to indulge
> their hobby. In the 1930's, it did not seem unreasonable to let people
> fire up 1 kW rigs in residential neighborhoods. In the 90's, it seems
> absurd to permit this. Reducing power to 10 W would reduce the electric
> field 20 dB (to 0.9 V/m). While this is still a lot of RF, the power
> level now becomes comparable to other services, like cellular phones and
> the like. It is time for the FCC to act to reduce the permissible RF
> fields that amateurs can blast into their neighbor's homes.

>

> Robert Orban

> Belmont, CA

>

>

> This should be a sobering thought. While the argument is not totally without
> merit, the picture being painted is one of the ham as villain and the "hapless
> neighbor" as victim. Responsible individuals with well-reasoned opposing
> opinions (no flames, please) are encouraged to write:

>

> Editor, RF Design, 6300 Syracuse Way, Suite 650, Englewood,

> Colorado, 80111

>

> Also, clip a copy of this and send it to your ARRL representative. Good

> luck to all, de Barrie k0www Rvierside, California

Many letters were written to RF Design in opposition to Mr. Orban's ideas.
A full page of replies was published in this month's magazine; they were all

well reasoned and articulately expressed, and each attacked Orban's proposal from a different point of view. I hope they did some good, and I would encourage ALL hams to read the responses. It is probably too late to expect that any further letters would be printed, but if you feel like being heard, go ahead and write: additional inputs cannot hurt. Be sure to send copies to the ARRL for their use and information.

73 de Barrie, k0wwwg

Date: Tue, 13 Apr 1993 19:39:02 GMT
From: pa.dec.com!nntpd2.cxo.dec.com!nuts2u.enet.dec.com!little@decwrl.dec.com
Subject: CW = effective utilization?
To: ham-policy@ucsd.edu

georgen@stortek.com "George Noyes" writes:

>Well, its real simple..... CW was the FIRST mode of communications used in
>radio communications. If it was packet, then maybe packet would be
>preferentially treated.

I suspect you are correct, but is that a *valid* reason for giving it preferential treatment today? Spark was also the first means of generating RF signals, yet it doesn't receive preferential treatment. Quite to the contrary, it's prohibited.

So what are the underlying principles for a CW requirement? Certainly you aren't suggesting that "being first" is a reasonable principle. Using that principle, we'd all have to learn how to ride a horse before getting a drivers license since riding horseback was the first assisted means of travelling. Tool and die makers would have to learn how to chip stone to make stone tools since that was the first means of making durable tools.

The only principle put forth that seems related to the purpose of the amateur radio service is that it is a demonstration of communication skill. I think that is a great principle.

The problem comes from the often added assumption that of all the modes available to amateurs, only CW requires effort to learn and utilize. Given the amount of time it has taken me to elmer several general through extra class operators in the use of packet radio, I'd contend that it can require a fair amount of effort to effectively communicate in any mode.

For those of us already proficient in digital communication using a non-radio medium (as is the bulk of this readership) the effort to learn an amateur digital mode is less than it is for other modes. But the same thing is true for a ship's radio operator. They're already proficient in

CW due to their job requirements, so it requires no additional effort for them to pass the amateur morse code exam. Why, where, and what you make the effort to learn shouldn't impact its importance or value.

I'd rather see principles used to determine our testing requirements that better match the amateur radio service's stated purpose. Nostalgia is **not** a stated purpose of our service.

73,
Todd
N9MWB

Date: Tue, 13 Apr 1993 19:39:14 GMT
From: pa.dec.com!nntpd2.cxo.dec.com!nuts2u.enet.dec.com!little@decwrl.dec.com
Subject: Let each determine their own incentive!
To: ham-policy@ucsd.edu

jackhill@jackatak.raider.net (Jack GF Hill) writes:

>> Why should CW be
>> singled out and forced upon every amateur that wants access to the low
>> bands?
>It is **NOT** "forced" on you, and since the HF spectrum is only 2% of
>the total, why must everyone feel cheated because they do not want to
>learn the Morse?

It **IS** forced on you to access 100% of the HF bands. The fact that the HF bands only represent 2% is meaningless for several reasons. One is that the propagation aspects of the HF bands is significantly different than the VHF and above bands. Second, using your argument, the HF bands represent 0% of the amateur allocations, since we have access to everything above 300 GHz. Third is that due to the current stagnation in amateur radio, most of the activity in the amateur bands occurs in the HF bands. Although there is some VHF/UHF activity outside repeater operation, it doesn't amount to a lot.

73,
Todd
N9MWB

PS Your generalizations are like all bigoted views, groundless and only justified by looking through your tinted glasses.

Date: Tue, 13 Apr 1993 18:59:28 GMT

From: qualcom.qualcomm.com!unix.ka9q.ampr.org!karn@network.UCSD.EDU
To: ham-policy@ucsd.edu

References <C5ECqK.Hr3@athena.cs.uga.edu>,
<Apr13.144109.55012@yuma.ACNS.ColoState.EDU>, <C5FKtp.IyI@athena.cs.uga.edu>
Reply-To : karn@servo.qualcomm.com
Subject : Re: 1500 watts too much?

In article <C5FKtp.IyI@athena.cs.uga.edu>, mcovingt@aisun3.ai.uga.edu (Michael Covington) writes:

|> In short, QRO ham transmitters aren't the source of the strongest fields
|> that consumer gear has to endure, anyway.

Is this really true? Sure, other consumer RF transmitters might cause RFI, but because of their lower power levels (the legal ones, anyway) the interference is more likely to be limited to the user's own TV or stereo. While RFI is always objectionable, interfering only with your own equipment is arguably much less of a public policy issue than interfering with your neighbor.

It *is* true that no other service has a blanket authorization to transmit as much as 1500 watts in the middle of a residential area. And the best way to protect that authorization is to use it wisely, i.e., only when absolutely necessary, and with reasonable regard for your neighbors even if their equipment is at fault. You may not be legally required to fix their susceptible equipment, but I've always felt a moral obligation to offer to do so, or at least to offer advice.

If too many more hams act like it's their God-given right to use 1500 watts to talk to the guy across town, then I wouldn't be surprised to see the limits lowered. And then none of us would be able to use 1500 watts even when it is fully justified and wouldn't interfere with anybody.

Sure, some broadcast stations run far more power, but they are far less numerous and are rarely sited quite as close to houses as are amateur transmitters.

Phil

Date: 13 Apr 93 22:22:00 GMT
From: swrinde!zaphod.mps.ohio-state.edu!ub!acsu.buffalo.edu!ubvmsb.cc.buffalo.edu!
v111qheg@network.UCSD.EDU
To: ham-policy@ucsd.edu

References <Apr13.144109.55012@yuma.ACNS.ColoState.EDU>,
<C5FKtp.IyI@athena.cs.uga.edu>, <1993Apr13.185928.1297@qualcomm.com>
Subject : Re: 1500 watts too much?

In article <1993Apr13.185928.1297@qualcomm.com>, karn@servo.qualcomm.com writes...

>In article <C5FKtp.IyI@athena.cs.uga.edu>, mcovingt@aisun3.ai.uga.edu (Michael Covington) writes:

>|> In short, QRO ham transmitters aren't the source of the strongest fields
>|> that consumer gear has to endure, anyway.

>

>Is this really true? Sure, other consumer RF transmitters might cause
>RFI, but because of their lower power levels (the legal ones, anyway)
>the interference is more likely to be limited to the user's own TV or
>stereo. While RFI is always objectionable, interfering only with your
>own equipment is arguably much less of a public policy issue than
>interfering with your neighbor.

Like I said in my post, my 1.5 KW E and H field radiation from
my 4 element monobander at 70 feet is far far less disruptive to my
next door neighbor who is 100 feet away from the antenna than the 60 cycle
AC his electric heater or his television set gives off. Don't forget that
unless you run AM, your 1.5KW is NONCONTINUOUS! My CW QSO with Bovet lasts
about 3 - 5 seconds. His viewing of TV lasts for hours.

>

>It *is* true that no other service has a blanket authorization to
>transmit as much as 1500 watts in the middle of a residential area.
>And the best way to protect that authorization is to use it wisely,
>i.e., only when absolutely necessary, and with reasonable regard for
>your neighbors even if their equipment is at fault. You may not be
>legally required to fix their susceptible equipment, but I've always
>felt a moral obligation to offer to do so, or at least to offer
>advice.

The good ham who is a good neighbor ALWAYS tries to help minimize
any disruption his neighbor experiences. Its good policy try to correct
the problem, regardless if your equipment or his equipment is the source.

>

>If too many more hams act like it's their God-given right to use 1500
>watts to talk to the guy across town, then I wouldn't be surprised to
>see the limits lowered. And then none of us would be able to use 1500
>watts even when it is fully justified and wouldn't interfere with
>anybody.

You didn't read my post, did you? If a local ham used 1.5KW to
talk to his good buddy across town, I'd cut his coax! It is NOT necessary!
However, 1.5Kw is reasonable if he is trying to talk to his son in
Antarctica or trying to work his last counter on SSB.

>

>Sure, some broadcast stations run far more power, but they are far
>less numerous and are rarely sited quite as close to houses as are
>amateur transmitters.

Ha! A local VHF TV station's tower is smack dab in downtown! They
run with an ERP of 22.5KW audio and 96.0 KW visual! talk about RF!!!

>

>Phil

Peter Vasilion, KB2NMV
KB2NMV@KE2WV.#WNY.NY.USA.NA
<<my opinions only>>

End of Ham-Policy Digest V93 #95
